

ABSTRACT

A range image sensor comprising a light source, a light detecting element, a sensor control stage and an image construction stage. The image construction stage calculates a distance value for each image element in a range image based on each electric charge picked up after a specific detection period of different detection periods by the sensor control stage, and then constructs the range image. The specific detection period is one of one or more detection periods during which the light detecting element does not reach saturation, and is one detection period during which a value related to the quantity of light received from the object space becomes maximum of that of the one or more detection periods.